

Although this collection seems to belong to *Tetrastigma Pullei* Lauterb., it seems worth mentioning that the leaves are coriaceous or very firmly chartaceous, the terminal leaflets vary from 1.7 to 4 cm. long and up to 3.2 cm. broad, the widely spreading primary veins are impressed above (sometimes also branched so that the upper leaf-surface appears rugose) and prominent beneath.

Tetrastigma Lauterbachianum Gilg in Engler & Prantl, Nat. Pflanzenfam. 3(5): 447, f. 218 A-E. 1896; K. Schum. & Lauterb. Fl. Deutsch. Schutzgeb. Südsee 430. 1900; Lauterb. Bot. Jahrb. 59: 510. 1925.

SOLOMON ISLANDS: Malaita Island, Quoimonapu, *Kajewski* 2319, December 1930, common in rain-forest at sea level.

The species has been recorded previously from New Guinea and the Bismarck Archipelago.

Cissus Linnaeus

Cissus conchigera Ridley, Trans. Linn. Soc. Bot. II. 9: 31. 1916.

NETHERLANDS NEW GUINEA: 4 km. southwest of Bernhard Camp, Idenburg River, *Brass* 13075, March 1939, alt. 850 m., climbing in *Saccharum* on flood banks of river (flowers greenish yellow; fruit black).

BRITISH NEW GUINEA: Palmer River, 1 mile above Black River Junction, *Brass* 6942, June 1936, wet clayey soil on riverside landslip (low scrambling brown-pubescent shrub; flowers yellow); Lake Daviumbu, Middle Fly River, *Brass* 7479, rain-forest, very common large canopy liana.

Without access to the type-specimens, we are unable to distinguish *Cissus Ledermannii* Lauterb. from this species. The lower leaf-surfaces in the Fly River collections are much more pubescent than those of the collection from Netherlands New Guinea, but all surely belong to the same species.

Cissus indica Rottler, Ges. Naturf. Freund. Berl. Neu. Schrift. 4: 183. 1803.

Cissus adnata Roxb. Fl. Ind. 1: 423. 1820.

On account of some doubt as to the identity of the plant, the name *Cissus indica* Rottler was discarded by Planchon. There seems to be, however, an authentic specimen in Willdenow's herbarium, and, in the light of the numerous present day collections, this ought to be re-examined together with the originals of *C. adnata* Roxb. and *C. assamica* (Laws.) Craib. These species have been variously interpreted. Of

the Indo-Malaysian material at hand, all of the earlier Indian collections have been distributed under the specific name *adnata*. In this are three entities as to types of pubescence: (1) pubescence of single several-celled hairs; (2) pubescence of malpighioid hairs, the leaf tending to become glabrous except along the nerves on the lower surface; (3) pubescence of malpighioid hairs, the leaf tending to remain densely pubescent on the lower surface. In addition, in the flowers of plants clothed with simple hairs, there are a few hairs around the base of the style on the disk; in the other two, the disk of the flowers is glabrous. The first, Gagnepain, Not. Syst. 1: 353. 1911, has interpreted as *C. adnata* Roxb., a species unquestionably distinct from the other two entities designated as *C. assamica* (Laws.) Craib, and var. *pilosissima* Gagnep. respectively. Whether Gagnepain's interpretation is correct we cannot say, since he gives no indication of having had access to authentic material of *C. adnata* Roxb. and both species are reported from the same region. As a matter of fact, in the early and historic collections (some of which are cited by Gagnepain) at hand the material is badly mixed; hence, without the opportunity to examine the original specimens, and, considering the rather vague original descriptions, any decision in the matter must, of necessity, be arbitrary.

In the Papuan collections under consideration there are specimens which, we believe, represent both *C. adnata* Roxb. and *C. assamica* (Laws.) Craib as interpreted by Gagnepain. Of the former, we have a single specimen, *Schlechter 18896*, cited by Lauterbach, Bot. Jahrb. 59: 519. 1925, under *C. repens* Lam. Unfortunately, we have not a single collection cited by Lauterbach under *C. adnata* Roxb.; hence, we are at a loss to know what entity he considered to be *C. adnata* Roxb. Further, we do not find in his work, "Die Vitaceen Papuasien," any mention of *Hollrung 419*, the one collection of this complex from New Guinea cited by Gagnepain. In view of the nomenclatural dilemma outlined above, for the present we have assigned the following collections to:

Cissus assamica (Laws.) Craib, Kew Bull. 1911: 31. 1911.

Vitis assamica Laws. Fl. Brit. Ind. 1: 648. 1875.

NETHERLANDS NEW GUINEA: 15 km. southwest of Bernhard Camp, Idenburg River, *Brass 12397*, January 1939, alt. 1500 m., rain-forest, climbing in undergrowth on open bank of stream (flowers yellow; fruit immature); 4 km. southwest of Bernhard Camp, Idenburg River, *Brass 13064*, March 1939, alt. 850 m., in rain-forest seral growths, common scrambling shrub on river banks. BRITISH NEW GUINEA:

Jawarere, *Brass* 679, November 1925, alt. \pm 300 m., rain-forest. NORTHEASTERN NEW GUINEA: Bulung River, *Clemens* 5341, February 1937, alt. \pm 800 m. SOLOMON ISLANDS: Bougainville Island, without definite locality, *Kajewski* 1605, March 1930, alt. 100 m., rain-forest (fruit black when ripe, 6 mm. long, 7 mm. diameter); Kugimaru, Buin, *Kajewski* 1811, June 1930, alt. 150 m., rain-forest (fruit shiny black when ripe, 6 mm. long 5.5 mm. diameter); Marmaromino, *Kajewski* 2215, September 1930, alt. 50 m., climbing in rain-forest trees.

Somewhat doubtfully we add *Kajewski* 2410, Berande, Guadalcanal Island. The leaves of this are larger and more membranaceous than in the other collections cited.

Cissus simplex Blanco Fl. Filip. 72. 1837; Merr. Enum. Philip. Fl. Pl. 3: 7. 1923.

Cissus pyrrhodasys Miq. Fl. Ind. Bat. Suppl. 1: 517. 1860.

SOLOMON ISLANDS: Guadalcanal Island, Uulolo, Tutuve Mountain, *Kajewski* 2640, May 1931, alt. 1200 m., common in rain-forest; Malaita Island, Quoimonapu, *Kajewski* 2362, December 1930, alt. 50 m., rain-forest.

These collections represent a small range extension eastward. The species is known from India through Malaysia. Possibly this is the entity which Lauterbach designated as *Cissus adnata* Roxb. var. *montana* in New Guinea.

Cissus* ? *hypoglauca A. Gray, Bot. U. S. Expl. Exped. 272. 1854; Planchon in DC. Monog. Phan. 5: 519. 1887.

Vitis hypoglauca F. v. Muell. Pl. Vict. 1: 94. t. 10. 1860-62; Benth. Fl. Austral. 1: 450. 1863.

NORTHEASTERN NEW GUINEA: Ogeramnang, *Clemens* 4970, January 1937, alt. \pm 1700 m., tall vine in forest.

This rather young specimen shows a very strong likeness to our Australian material of *Cissus hypoglauca* A. Gray. It differs in that the midrib on the lower surface of the leaflets, the petioles, petiolules, and the axis of the inflorescence are clothed more or less with a brownish tomentum. This is obviously partly deciduous, but whether it is wholly so as the plant arrives at maturity we cannot say.

***Cayratia* Jussieu**

Cayratia grandifolia (Warb.) comb. nov.

Cissus grandifolia Warb. Bot. Jahrb. 18: 199. 1893; K. Schum. & Lauterb. Fl. Deutsch. Schutzgeb. Südsee 428. 1900; Lauterb. Nov. Guin. 8: 302. 1910; Rechinger, Denkschr. Math.-Naturw. Kaiserl.

Akad. Wissensch. **89**: 574 (Bot. Zool. Ergeb. Wiss. Forsch. Samoa-I. Neug.-Arch. Salomonsins. **5**: 132). 1913; Ridl. Trans. Linn. Soc. Bot. II. **9**: 31. 1916; Lauterb. Bot. Jahrb. **59**: 527. 1925.

BRITISH NEW GUINEA: Western Division, Daru Island, *Brass* 6396, March 1936, rare in second growth rain-forest (robust liana); Sturt Island, Lower Fly River, *Brass* 8195, October 1936, rain-forest (large climber ascending to the tree-tops); Central Division, Nakeo District, Baroka, *Brass* 3771, April 1933, alt. 30 m., fairly common in the rain-forests (very large climber with thick flexible stems; leaflets somewhat convex, shining on both surfaces, nerves pale; petals greenish yellow). SOLOMON ISLANDS: Bougainville Island, Kieta, *Kajewski* 1577, March 1930, at sea-level, rain-forest (common vine; fruit white-green when ripe, semi-transparent, flattened at the apex and the base, 9 mm. long, 14 mm. diameter, when dry 6 mm. long, 8 mm. diameter, \pm rugose).

Although we have no authentic material for comparison, these collections agree reasonably well with the description of this species except that the pubescence on the lower surface of the leaves is confined to the midrib and the larger nerves.

Cayratia megacarpa (Lauterb.) comb. nov.

Cissus megacarpa Lauterb. Bot. Jahrb. **59**: 526. 1925.

This species is represented in our herbarium only by *Schlechter* 16878, a specimen cited in the original description.

Cayratia lineata (Warb.) comb. nov.

Cissus lineata Warb. Bot. Jahrb. **13**: 370. 1891.

Cayratia lineata var. **fusco-lanata** (Lauterb.) comb. nov.

Cissus lineata var. *fusco-lanata* Lauterb. Bot. Jahrb. **59**: 528. 1925;
C. T. White, Jour. Arnold Arb. **10**: 236. 1929.

The two specimens of this variety at hand are *Schlechter* 16775, an isotype, and *Brass* 1137.

Cayratia japonica (Thunb.) Gagnep. Not. Syst. **1**: 349. 1911, Fl. Gén. Indo-Chine **1**: 983. t.26. f.11-16. 1912.

Vitis japonica Thunb. Fl. Japan 104. 1784.

SOLOMON ISLANDS: Guadalcanal Island, Uulolo, Tutuve Mountain, *Kajewski* 2600, April 1931, alt. 1200 m., common in rain-forest (fruit black when ripe, flattened, 8 mm. long, 1.4 cm. diameter).

This collection agrees reasonably well with the material of this species from tropical Asia. *Cayratia japonica* (Thunb.) Gagnep. appears to be a wide-spread species, having been reported from China, Indo-China, Japan, Formosa, Java, the Philippines, Australia, New Caledonia, the

Loyalty Islands, and the Bismarck Archipelago. This seems to be the first record from the Solomon Islands.

Leea Linnaeus

Leea indica (Burm. f.) Merr. Philip. Jour. Sci. **14**: 245. 1919, Enum. Philip. Fl. Pl. **3**: 11. 1923.

Staphylea indica Burm. f. Fl. Ind. 75. t. 23, f. 2. 1768.

Leea sambucina Willd. Sp. Pl. **1**: 1177. 1797; Benth. in Hook. Lond. Jour. Bot. **2**: 214. 1843; Hemsl. Kew Bull. **1895**: 134. 1895; Valetou, Bull. Dept. Agric. Néerl. **10**: 31. 1907; Rechinger, Denkschr. Math.-Naturw. Kaiserl. Akad. Wissensch. **89**: 574. 1913; C. T. White, Proc. Roy. Soc. Queensl. **34**: 43. 1923; Lauterb. Bot. Jahrb. **59**: 531. 1925; Lam, Nat. Tijdschr. Nederl. Ind. **88**: 208. 1928; C. T. White, Jour. Arnold Arb. **10**: 237. 1929.

BRITISH NEW GUINEA: Fly River, 528 mile Camp, *Brass 6809*, common on river banks from camp to coast; Lower Fly River, east bank opposite Sturt Island, *Brass 8201A*, plentiful on river banks (sparsely branched tree 6–7 m. high; stem and branches hollow and inhabited by ants; branchlets corrugated; flowers green).

In addition to the above are two other collections which may possibly belong here; at least without further material we are hesitant about placing them elsewhere at present. The leaves are very much like those of *L. indica* (Burm. f.) Merr. but are minutely pilose on the nerves on the lower surface of the leaflets, and the leaflets have a very long acumen (up to 3 cm.); the inflorescence (in early anthesis) is very short (up to 12 cm. long) as compared to the usual form in this species.

NETHERLANDS NEW GUINEA: 6 km. southwest of Bernhard Camp, Idenburg River, *Brass 12764*, February 1939, alt. 1200 m., on open banks of a small stream (tree 3 m. high). SOLOMON ISLANDS: San Cristobal Island, Waimamura, *Brass 2591*, August 1932, common in lowland rain-forests (sparsely branched tree 12 m. tall, supported on stilt roots 1 m. long; stems pithy; bark brown, lenticellate; flowers yellowish green; fruit compressed, fleshy, purple-black, 1.3 cm. diameter).

Leea solomonensis sp. nov.

Arbor usque 7 m. alta; ramulis minute ferrugineo-pubescentibus; foliis simpliciter pinnatis, in specimine typico 2-jugis; petiolo circiter 6 cm. longo et rhachi 7 cm. longa minute crispule ferrugineo-pubescentibus; foliolis ellipticis, \pm 18 cm. longis, 8–10 cm. latis, basi obtusis vel late cuneatis, apice fractis, margine repando-dentatis, chartaceis, supra glabris, subtus parce crispule pubescentibus, subclathrato-reticulatis, venis primariis utrinsecus 15–17, patenti-adscendentibus prope marginem

arcuatis, supra distinctis, subtus prominulis; petiolulis lateralibus 1.4–2 cm. longis, terminali 4.2 cm. longo; paniculis minute crispule pubescentibus, in fructu 35 cm. longis; alabastris immaturis, calyce puberulo; petalis 5 basi connatis, apice inflexo-mucronatis valvatis, 6 mm. longa, extus apicem versus puberulis; staminibus 5; ovario glabro, stylo glabro striato; baccis depressis globosis, in sicco \pm 1.5 cm. longis, 2.5 cm. diametro, 6-spermis.

SOLOMON ISLANDS: Guadalcanal Island, Ma-massa, Konga, *Kajewski* 2488 (TYPE), February 1931, alt. 400 m., common in rain-forest (a very small tree up to 7 m. high; fruit red when ripe, 2.4 cm. long, 3 cm. diameter, flattened at the apex and the base).

In its loosely branching inflorescence *Leea solomonensis* appears to be related to *L. macropus* Lauterb. & K. Schum. It may be readily distinguished however, by the elliptic leaves obtuse rather than rounded at the base, and the minute crisp pubescence on the lower surface of the leaves.

***Leea suaveolens* sp. nov.**

Arbor usque 10 m. alta; foliis simpliciter pinnatis, ? bijugis, petiolo \pm 7 cm. longo, glabro vel puberulo; foliolis oblongo-ellipticis, 15–20 cm. longis, 7–9 cm. latis, basi subrotundatis paullo obliquis, apice acuminatis, acumine 2–2.5 cm. longo, margine grosse serrato-crenatis, subcoriaceis, glabris vel subtus costa atque axillis inter venas ac costam parce pubescentibus, tenuiter subclathrato-reticulatis, venis primariis utrinsecus 11–13, patenti-adscendentibus prope marginem arcuatis, in dentes marginis ipsius excurrentibus; petiolulis \pm 1.5 cm. longis, puberulis interdum consperse glandulosis; paniculis puberulis subdivaricatis ramosis; floribus pentameris ad apices ramulorum 2–4-natis; pedicellis 5–6 mm. longis; calyce 3 mm. longo, campanulato, \pm irregulariter lobato, extus puberulo interdum parce glanduloso; corolla 7 mm. longa, laciniis oblongis, 4.5 mm. longis, apice brevissime subcucullatis inflexo-mucronulatis, extus puberulis; staminibus 5, filamentis prope basim disci extus insertis atque in sulcis longitudinalibus disci immersis, antheris in alabastro intra discum inflexis, 1.8 mm. longis; disco cylindrico, 5 mm. longo, 5-dentato, dentibus emarginatis; ovario glabro, 1 mm. longo, stylo striato 3 mm. longo puberulo; baccis globosis, siccis 2.5 cm. diametro, 6-spermis.

SOLOMON ISLANDS: Ysabel Island, Tiratona, *Brass* 3343 (TYPE), December 1932, alt. 600 m., common in rain-forests (densely foliated tree up to 10 m. tall; leaves pale below; flowers cream-colored, sweetly perfumed; fruit globose, smooth, brown, up to 5 cm. diameter).

In the oblong-elliptic leaflets and the open inflorescence *Leea suaveolens* shows some resemblance to *L. macropus* Lauterb. & K. Schum. The latter, however, is a glabrous tree with flowers densely crowded at the apices of the ultimate branches of the inflorescence. In *L. suaveolens* the inflorescence is puberulous with scattered glands on the calyx and occasionally on the axis and the branches of the inflorescence; glands also occur on the rachis and the petiolules of the leaflets. Unfortunately, our material is too scanty to determine whether these are sufficiently constant to be used as a specific diagnostic character. The fruit of this species is somewhat larger than that reported for the other related species.

Leea macropus Lauterb. & K. Schum. Notizbl. Bot. Gart. Berl. **2**: 130. 1898; K. Schum. & Lauterb. Fl. Deutsch. Schutzgeb. Südsee 430. 1900, Nachtr. 313. 1905; Valetton, Ic. Bogor. **3**: 147. *t.* 258. 1908; Bak. f. Jour. Bot. **61**: Suppl. 11. 1923, l. c. **62**: 54. 1924; Lauterb. Bot. Jahrb. **59**: 530. 1925; Kaneh. & Hatus. Bot. Mag. Tokyo **52**: 415. 1938.

SOLOMON ISLANDS: San Cristobal, Balego-Nagonago, *Brass* 2825, September 1932, alt. 500 m., mountain rain-forests (sparsely branched spreading tree 6 m. tall; branches pithy, rather fleshy; leaves smooth and shining; flower buds yellow; unripe fruit brown, broadly pyriform, 2.5 cm. diameter).

Although we have no authentic material of this species for comparison, this collection corresponds too closely with Valetton's description and plate of K. Schumann's species to be placed elsewhere at present. Closely allied or possibly belonging to the same species is *Kajewski* 1865, a fruiting specimen with open inflorescence and bipinnate leaves. This material was collected on Bougainville Island.

Leea papuana sp. nov.

Arbuscula 2–2.5 m. alta, ramosa vel eramosa; foliis paucis sub apice caulis congestis, simpliciter pinnatis, 5-jugis; petiolo 17 cm. longo, rhachi 31 cm. longa 4-angulatis, supra canaliculatis, marginibus ventralibus alatis vel subalatis, glabris; petiolulis 6–12 mm. longis, crispalatis; foliolis anguste oblongis, 18–38 cm. longis, 6.5–10 cm. latis, basi obtusis vel subrotundatis, apice longe acuminatis, acumine 1.5–3 cm. longo, margine remotiuscule sinuato-dentatis, glabris, coriaceis, crebre clathrato-reticulatis, venis primariis utrinsecus 10–17, supra distincte manifestis, subtus perspicuis; panícula terminali conferta; axi 5–6 cm. longa; baccis brunneis globosis, \pm 3.5 cm. diametro, 6-spermis.

BRITISH NEW GUINEA: Palmer River, 2 miles below Black River

Junction, *Brass* 7325 (TYPE), July 1936, alt. 100 m., restricted to the muddy banks of flood-plain streams; uncommon (small tree, branched or unbranched, 2–2.5 m. high; leaves few, clustered at the apex of the stem below a dense terminal cluster of soft brown globose fruit \pm 3.5 cm. diameter).

Leea tuberculata Lauterb., *L. coryphantha* Lauterb., and *L. heterodoxa* Lauterb. & K. Schum., all have more or less the aspect of *L. papuana*. Nevertheless, our new species may be distinguished from the first by its simply pinnate leaves, from the second by the coriaceous narrower and sinuate-dentate leaflets, and from *L. heterodoxa* Lauterb. & K. Schum. by the narrowly winged rachis.

CAMPANULACEAE

Wahlenbergia Schrader

Wahlenbergia confusa sp. nov.

Herba gracilis glabra; caulibus decumbentibus hinc inde ramosis; ramis 5–15 cm. longis, adscendentibus, saepe confertis, inferne foliosis, insuper nudis (1–6 cm.), unifloris; foliis alternis, sessilibus, lineari-oblongis vel fere lanceolatis, 4–7 mm. longis, 1.5–2 mm. latis, remote minuteque serrato-dentatis; calyce glabro, tubo circiter 2 mm. longo, cyathiformi, lobis lineari-lanceolatis acuminatis, 3 mm. longis; corolla cyanea, 1.6 cm. longa, infundibuliformi, 5-fida, lobis ovatis; staminibus in alabastris prope anthesim 5 mm. longis, antheris 2 mm. longis, filamentis post anthesim 3 mm. longis, minute pilosis, basi appplanatis sursum gradatim angustatis, versus apicem filiformibus; stylo longitudine tubi corollae, a medio ad apicem puberulo; stigmatibus 3, post anthesim revolutis; capsulis \pm 5 mm. diametro, subglobosis, calycis lobis reflexis coronatis, 3-ocularibus, apice 3-valvis, dehiscentibus; seminibus ellipsoideis, vix 1 mm. longis.

NETHERLANDS, NEW GUINEA: 5 miles northeast of Wilhelmina-top, *Brass* 9399 (TYPE), August 1938, alt. 3440 m., plentiful under the banks of grassland streams (ascending herb with striking blue flowers); 11 km. northeast of Wilhelmina-top, *Brass & Myer-Drees* 9721, September 1938, alt. 3400 m., rather wet open places along a small river (herbaceous; corolla blue).

The species most closely approaches the description of *Wahlenbergia eurycarpa* Domin, but that is an erect plant with a larger capsule. As compared with *W. gracilis* A. DC., this plant is readily separated by the one-flowered inflorescence, and the flowers are distinguishable by the outline of the filaments; in this species the filament gradually tapers

to a filiform apex, in *W. gracilis* A. DC. the flattened and pubescent base of the filament very abruptly narrows into the short filiform apex; the capsules too are slightly different in outline, and the calyx lobes crowning the capsule of *W. gracilis* A. DC. are erect.

Wahlenbergia gracilis A. DC. Monog. Campan. 142. 1830; F. v. Muell. Pap. Pl. 2: 11. 1885; K. Schum. & Lauterb. Fl. Deutsch. Schutzgeb. Südsee 593. 1900; White & Francis, Proc. Roy. Soc. Queensl. 38: 260. 1927.

NETHERLANDS NEW GUINEA: Balim River, *Brass* 11627, December 1938, alt. 1600 m., plentiful on grassy deforested slopes. BRITISH NEW GUINEA: Central Division, Wharton Range, Murray Pass, *Brass* 4640, June-September 1933, alt. 2840 m., sporadic on grasslands.

We believe these collections represent *Wahlenbergia gracilis* A. DC. in the wider sense. They appear to be more like the Australian material passing as *W. gracilis* A. DC. than the Asiatic material labelled *W. marginata* A. DC. It is to be noted, however, that there has been a tendency to regard the two as the same species, although specialists working on the group state very definitely that the Australian material is different from the Asiatic. Nannfeldt, Act. Hort. Gothob. 5: 32. 1929 (Campanulaceae in H. Smith, Pl. Sinenses) indicated that N. E. Brown, Gard. Chron. 54: 316. 1913, discussed and defined *Wahlenbergia gracilis*, attributing the combination to Schrader who did not complete it, and pointing out that *W. gracilis* A. DC. is a mixture of at least a half dozen perfectly distinct species; also that the entities cannot be untangled without considerable study of the types.

Pentaphragma Wallich

Pentaphragma macrophyllum Oliver, Jour. Linn. Soc. Bot. 15: 29. 1875; F. v. Muell. Pap. Pl. 1: 28. 1876; Valetton, Bull. Dept. Agric. Néerl. Ind. 10: 68. 1907; Pulle, Nov. Guin. Bot. 8: 407. 1910, l. c. 691. 1912; Lam, Nat. Tijdschr. Nederl.-Ind. 88: 213, 218. 1928.

NETHERLANDS NEW GUINEA: 6 km. southwest of Bernhard Camp, Idenburg River, *Brass* 12904, alt. 1200 m., in sheltered gully in rain-forest; 4 km. southwest of Bernhard Camp, Idenburg River, *Brass* 13275, alt. 850 m., occasional on shady banks of rain-forest streams. BRITISH NEW GUINEA: Fly River, 528 mile Camp, *Brass* 6622, May 1936, alt. 80 m., casual in gullies of forest (a striking fleshy unbranched shrub \pm 1 m. high; leaves smooth and shining, nerves deeply impressed above, prominent below; sepals greenish white; petals yellow; fleshy white fruit containing very small brown seeds).

The collections from Netherlands New Guinea agree closely with the original description. These have a practically glabrous flower, somewhat pubescent at the base and also on the subtending bracts and along the axis of the inflorescence. The lower surface of the leaves is pubescent chiefly along the nerves. In the Fly River material, the calyx-tube is pubescent outside even when mature, the axis of the inflorescence and the floral bracts are densely so, and the entire lower surface of the leaves is sparsely pubescent. Possibly further collections will reveal other differences.

Lobelia Linnaeus

Lobelia brachyantha sp. nov.

Herba prostrata paullo ramosa, consperse pilosa, trichomatibus simplicibus pluricellularibus; caulibus gracillimis; foliis parvis, late reniformi-orbicularibus, 2.5–5 mm. longis, 3–7 mm. latis, petiolatis, petiolo \pm 2 mm. longo; margine undulato-dentatis, dentibus mucronulatis, supra consperse pilosis, subtus glabris; floribus axillaribus; pedunculis 4–5 mm. longis; hypanthio brevissimo, calycis lobis 2–2.5 mm. longis, lineari-lanceolatis obtusiusculis, margine utroque prope medio lobulum unum gerentibus; corolla purpurea, oblique subcampanulata, 3 mm. longa, tubo brevi intus maculato atque minute piloso, lobis extus pilosis, 3 anticis ovatis, 2 posticis paullo oblique lanceolatis; staminibus connatis, fere 3 mm. longis, filamentis glabris, antherarum tubo extus postico parce glanduloso, antheris 2 inferioribus minoribus apice setigeris, 3 superioribus apice nudis; capsulis vix 3 mm. longis, bivalvis; seminibus compressis ovoideis.

NETHERLANDS NEW GUINEA: Bele River, 18 km. northeast of Lake Habbema, *Brass 11570* (TYPE), November 1938, alt. 2350 m., creeping on bare rock on a sparsely vegetated limestone precipice (flowers a very dark purple).

Lobelia brachyantha is a very small species with a *Pratia*-like habit belonging to the section *Hemipogon*. It differs from the description of *L. arfakensis* Gibbs in the very shallowly sinuate-dentate leaf-margins, the much smaller flowers and capsules, the very short hypanthium, and the minutely lobed or toothed calyx-lobes. The hairs of the pubescence are distinctly several-celled.

Lobelia microcarpa C. B. Clarke in Hook. f. *Fl. Brit. Ind.* 3: 424. 1881, *vel aff.*

BRITISH NEW GUINEA: Oriomo River, Wuroi, *Brass 5737*, January-March 1934, alt. 10–30 m., common throughout the savannahs (fleshy

ascending herb with small blue flowers); Lake Daviumbu, Middle Fly River, *Brass* 7839, plentiful on wet savannahs and open grass plains (flowers bright blue).

This plant (from 10–50 cm. in height) is much larger than that (7–13 cm.) which was the basis of the original description, yet the characters are similar: the lower leaves are lanceolate-ovate, crenulate-dentate, the upper are linear and bract-like. The seeds are distinctly trigonous. Unfortunately, we have no material for comparison. It is very much like some collections from Indo-China and China at present passing under various names, including material named by F. E. Wimmer as a variety of *L. alsinoides* Lam. and described by Danguy as *L. chinensis* Lour. var. *cantonensis* Wimm.

Lobelia zeylanica L. Sp. Pl. 932. 1753; G. Don, Gen. Syst. 3: 709. 1834.

Lobelia succulenta Blume, Bijdr. 728. 1826; Lam, Nat. Tijdschr. Nederl. Ind. 89: 315, 317. 1929.

Lobelia affinis Wall. List no. 1311. 1829, *nomen nudum*; G. Don, Gen. Syst. 3: 709. 1834; S. Moore, Trans. Linn. Soc. Bot. II. 9: 88. 1916; Diels, Bot. Jahrb. 55: 122. 1917.

Lobelia barbata Warb. Bot. Jahrb. 13: 444. 1891; K. Schum. & Lauterb. Fl. Deutsch. Schutzgeb. Südsee 593. 1900.

NETHERLANDS NEW GUINEA: 4 km. southwest of Bernhard Camp, Idenburg River, *Brass* 13253, March 1939, alt. 850 m., rain-forest, common on open flood banks of river; Bernhard Camp, Idenburg River, *Brass* 13965, April 1939, alt. 55 m., on silt beds in a rain-forest stream (flowers violet). NORTHEASTERN NEW GUINEA: in open thickets, *Schlechter* 18258, September 1908, alt. 600 m.

Two factors probably have contributed to the confusion associated with the interpretation of *Lobelia zeylanica* L. Linnaeus derived his specific name from *Campanula ceylanica, senecionis folio, flore purpureo* Seba, Thes. 1: 37. t. 22, f. 12. 1734, yet, at the same time, adding a question mark to the reference; however, his description was based wholly on a plant collected by Osbeck, near Canton, China, and this, as described, represents a species totally different from the form Seba illustrated. The Osbeck specimen is unquestionably the type of *L. zeylanica* L. We have examined a number of collections from southern China which agree well with the description of Linnaeus' species, and some of these have been so named by F. E. Wimmer. In the herbarium of the New York Botanical Garden is a specimen named in Blume's handwriting as *L. succulenta* Bl., thus being apparently an isotype. It is a good match for the Chinese material of *L. zeylanica* L., and also for the Indian material of *L. affinis* Wall. It should be noted, however,

that De Candolle, Prodr. 7: 373. 1839, placed *L. succulenta* Bl. in §2, characterized thus, "Antherae 2 solum inferiores apice barbatae vel setis terminatae," and in his specific description says "Antherae superiores glabrae"; his authority for this is "(v. in h. mus. Par. a cl. Blum. miss.)." Hence, it would seem either that Blume distributed a mixed collection or that De Candolle erred in his observations. We have at hand collections of this species from China, India, Sumatra, Java, and New Guinea.

A collection from Java labeled in Blume's handwriting as *Lobelia javensis* Zipp. is a distinctly different species.

Phyllocharis Diels

Phyllocharis subcordata sp. nov.

Herba basi radicans; caulibus glabris; foliis 1–1.5 cm. petiolatis, tenuiter membranaceis, glabris vel subtus in nervis puberulis, anguste ovatis, 1.5–3.5 cm. longis, 1.2–2 cm. latis, apice acutiusculis, basi subcordatis vel truncato-subcordatis saepe paullo inaequilateralibus, margine crenato-dentatis, dentibus mucronatis; floribus pedunculatis; pedunculo 5–6 mm. longo; calycis tubo 1–2 mm. longo, glabro, lobis linearibus, 2–3 mm. longis; corollae tubo brevissimo, lobis 2 posticis 8 mm. longis, 0.5 mm. latis, quam labio antico subduplo longioribus, glabris, lobis 3 anticis 3 mm. longis supra medium connatis, intus papillois; seminibus minute verruculosis.

NORTHEASTERN NEW GUINEA: Morobe District, Yoangen, *Clemens* 3426 (TYPE), June 1936, alt. \pm 1200 m., on wet bank with *Elatostemma* (flowers yellow); Malalo Mission, *Clemens* 4404A, December 1936, alt. \pm 750 m.

In the crenate-dentate leaf-margin and the inner papillose surface of the anterior lip of the corolla, this species approaches *Phyllocharis Schlechteri* Diels; in the practically glabrous flower, the much longer posterior lobes of the corolla and the verruculose seeds there is a likeness to *P. oblongifolia* Diels. *Phyllocharis subcordata* differs from both species in the subcordate or truncate and very shallowly lobed leaf-base.

GOODENIACEAE

Velleia Smith

Velleia spathulata R. Br. Prodr. 580. 1810; F. M. Bail. Queensl. Fl. 3: 894. 1900; Krause, Pflanzenr. 54(IV.277): 29. 1912.

BRITISH NEW GUINEA: Western Division, Oriomo River, Dagwa,

Brass 5931, February-March 1934, alt. 40 m., common on damp slopes of open ridges (ascending panicles of pale yellow flowers); Wassi Kussa River, Tarara, *Brass* 8385, December 1936, savannah forest, common in poorly drained gray soils (flowers yellow).

Apparently these are the first collections of this genus outside of Australia. The first collection cited was identified by Mr. C. T. White with the comment that it was a good match for the Australian plant.

Calogyne R. Brown

Calogyne pilosa R. Br. Prodr. 579. 1810; F. M. Bail. Queensl. Fl. 3: 905. 1900; Merr. Govt. Lab. Publ. 35: 68. 1905, Enum. Philip. Fl. Pl. 3: 589. 1923; Krause, Pflanzenr. 54(IV.277): 95. 1912.

BRITISH NEW GUINEA: Western Division, Oriomo River, Dagwa, *Brass* 5995, February-March 1934, alt. 40 m., common amongst grass on a savannah forest ridge (flowers brownish purple).

The species has been found previously in China, the Philippines, and Australia.

ARNOLD ARBORETUM,
HARVARD UNIVERSITY.

**BRASSIANTHA, A NEW GENUS OF HIPPOCRATEACEAE
FROM NEW GUINEA***

A. C. SMITH AND I. W. BAILEY

With one plate

A SPECIES occurring in the New Guinea collections of both Brass and Clemens was first called to the attention of the authors by Drs. E. D. Merrill and L. M. Perry, who, in their studies of the Celastraceae of these collections, came to the conclusion that the plant more probably belonged in the Hippocrateaceae than in the Celastraceae. Further study verified the conclusion that the species is a member of the Hippocrateaceae, although in many respects it is unique and far from typical of the family as previously understood. We propose to designate this plant as the type-species of a new genus, *Brassiantha*, so named in honor of Mr. L. J. Brass, whose extensive collections in New Guinea as a member of the Richard Archbold Expeditions have greatly enriched our botanical knowledge of the region. All material cited in this paper is deposited in the herbarium of the Arnold Arboretum. The first author has drawn up the formal description and has compared the plant with other genera of the Hippocrateaceae, while the second author has contributed the comments on the anatomical relationships of the new genus.

BRASSIANTHA A. C. SMITH, GEN. NOV.

Arbores parvae, ramis ramulisque gracilibus alternatis, foliis alternatis petiolatis, laminis chartaceis vel papyraceis; inflorescentiis ex axillis foliorum interdum delapsorum orientibus paniculatis vel pseudocymosis, ramulis paucis alternatis vel suboppositis bracteis parvis subtentis; floribus parvis in cymulas aggregatis vel apicem inflorescentiarum versus solitariis bracteolis inconspicuis pluribus suffultis; pedicellis gracilibus basim versus inconspicue articulatis; calyce cupuliformi, sepalis 5 anguste imbricatis; petalis 5 sub anthesi erecto-patentibus; disco carnosio annulari-pulvinato discontinuo (segmentis 5 oblongis distinctis sed contiguis composito); staminibus 5 erectis intra discum dispositis et segmentis disci alternatis, filamentis obscure ligulatis apice antheris

*Botanical Results of the Richard Archbold Expeditions.